

## ABSTRACT OF THE DISCLOSURE

This invention relates to diagnostic and monitoring devices. According to the invention, spectrophotometric devices preferably include a needle assembly having a hollow needle body with radiation ports. Preferably, disposed in the body are fiber optic bundles for carrying electromagnetic radiation, such as visible, infrared light, and/or ultraviolet light to a sample and for transmitting backscattered radiation to a light detector or sensor. The needle configuration preferably allows for insertion subcutaneously into muscle tissue and/or into other organs. It permits evaluation of difficult to access areas and facilitates securing the device in place. Barbs may be provided on the needle to anchor the device in place.